

TECHNICAL INFORMATION AND SERVICE DATA



RADOLAS

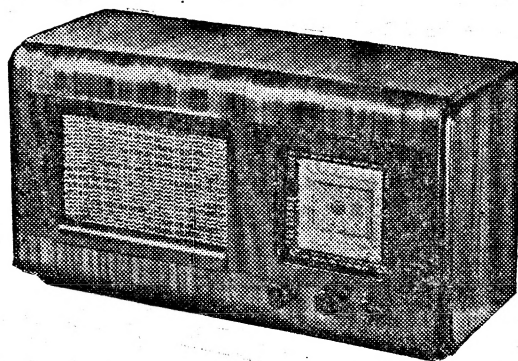
Models 515-M, 616-T & 716-C

FIVE VALVE, TWO BAND, BATTERY/VIBRATOR
OPERATED SUPERHETERODYNES

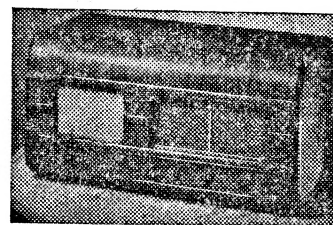
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AMALGAMATED WIRELESS (A/SIA.) LTD.

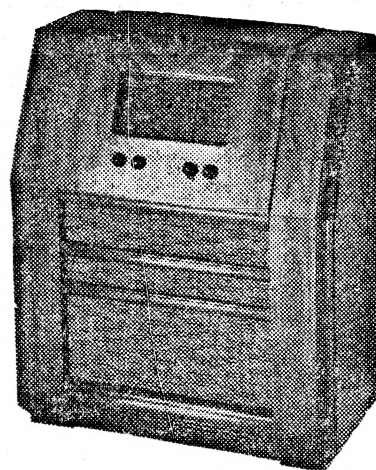
515-M, 616-T & 716-C



515-M



616-T



716-C

ELECTRICAL SPECIFICATIONS.

FREQUENCY RANGES:

Medium Wave 1600-540 Kc/s (187.5-555 M.)

Short Wave 18-6 Mc/s (16-50 M.)

INTERMEDIATE FREQUENCY 455 Kc/s

BATTERY COMPLEMENT:

| | Cable with tips. | Cable with plugs. |
|--|---------------------|----------------------|
| (1) 1—4 volt accumulator | 19183 | 19803 |
| (2) 2—45 volt "B" batteries | | |
| (1) 1—1.5 volt dry cell "A" battery | 19182 | 19801 |
| (2) 2—45 volt "B" batteries | | |

NOTE: If a 1.5 volt dry cell "A" battery is used, it is necessary, if dial illumination is required, to remove the dial lamp cable from the terminals on top of the chassis and to connect the cable to the outer terminals of a 4.5 volt battery—see diagram "Battery Connections."

VIBRATOR POWER UNIT OPERATION:

1—4 volt accumulator.

Vibrator Power Unit No. 19190.

BATTERY CONSUMPTION:

| | |
|----------------------|----------|
| 4 volt "A" battery | 0.2 amp. |
| 1.5 volt "A" battery | 0.3 amp. |
| "B" battery | 16 mA |
| Vibrator operation | 0.8 amp. |

DIAL LAMP 6.3 volt, 0.25 amp.

FUSE:

| | |
|--------------------|------------------------------------|
| Battery Operation | $\frac{1}{4}$ — $\frac{3}{8}$ amp. |
| Vibrator Operation | 3 amp. |

CIRCUIT CODE — Model 616-T

515-M, 616-T & 716-C

| Code No. | Description. | Part No. | Code No. | Description. | Part No. | Code No. | Description. | Part No. |
|-------------------|---|----------|--------------------|---------------------------------|----------|------------------------------|---|----------|
| INDUCTORS. | | | | | | | | |
| L1 | I.F. Filter (including C1) | 9382 | R7 | 0.5 megohm volume control | 20293 | C7 | 3-25 uuF air trimmer | 19659 |
| L2, L3 | Aerial Coil, 1600-540 Kc/s | 15454 | R8 | 10 megohms, 1 watt | | C8 | 4000 uuF mica padder $\pm 2\frac{1}{2}\%$ | |
| L4, L5 | Aerial Coil, 18.6 Mc/s | 15456 | R9 | 3.2 megohms, 1 watt | | C9 | 0.05 uF paper, 200 v. working | |
| L6, L7 | Oscillator Coil, 1600-540 Mc/s | 9206A | R10 | 1 megohm, $\frac{1}{2}$ watt | | C10 | 12-430 uuF tuning (ganged) | 20460 |
| L8, L9 | Oscillator Coil, 18.6 Mc/s | 15922 | R11 | 0.5 megohm, $\frac{1}{2}$ watt | | C11 | 12-430 uuF tuning (ganged) | 20460 |
| L10, L11 | 1st I.F. transformer | 22416 | R12 | 320 ohms, $\frac{1}{2}$ watt | | C12 | Neutralising | |
| L12, L13 | 2nd I.F. transformer | 22416 | R13 | 0.5 megohm, $\frac{1}{2}$ watt | | C13 | 70 uuF mica | |
| L14, L15 | 3rd I.F. transformer | 15483 | R14 | 320 ohms, $\frac{1}{2}$ watt | | C14 | 470 uuF mica padder $\pm 2\frac{1}{2}\%$ | |
| L16 | L.T. choke (audio) | XA18 | R15 | 25 ohms, 1 watt | | C15 | 70 uuF mica | |
| RESISTORS. | | | R16 | 56 ohms, 1 watt | | C16 | 70 uuF mica | |
| R1 | 10,000 ohms, 1 watt | | R17 | 10,000 ohms, $\frac{1}{2}$ watt | | C17 | 0.05 uF paper, 200 v. working | |
| R2 | 0.1 megohm, $\frac{1}{2}$ watt | | CAPACITORS. | | | C18 | 0.1 uF paper, 200 v. working | |
| R3 | 0.1 megohm, $\frac{1}{2}$ watt | | C1 | 50 uuF silvered mica | | C19 | 70 uuF mica | |
| R4 | 1.6 megohm, $\frac{1}{2}$ watt | | C2 | 3-25 uuF air trimmer | 19659 | C20 | 70 uuF mica | |
| R5 | 50,000 ohms, $\frac{1}{2}$ watt | | C3 | 3-25 uuF air trimmer | 19659 | C21 | 100 uuF mica (in 3rd I.F.) | |
| R6 | 20,000 ohms, $\frac{1}{2}$ watt (in 3rd I.F.) | | C4 | 0.05 uF paper, 200 v. working | | C22 | 0.05 uF paper, 200 v. working | |
| | | | C5 | 3-25 uuF air trimmer | 19659 | C23 | 70 uuF mica (in 3rd I.F.) | |
| | | | C6 | 9 uuF mica | | | | |
| | | | | | | TRANSFORMER. | | |
| | | | | | | T1 | Loudspeaker transformer | XA8 |
| | | | | | | SWITCHES. | | |
| | | | | | | S1 | Range Switch | 20507 |
| | | | | | | S2 | Battery/Tone Switch | 22632 |
| | | | | | | S3 | Dial Lamp Switch | 15915 |
| | | | | | | LOUDSPEAKER. | | |
| | | | | | | 7 inch permanent magnet AY40 | | |

D.C. RESISTANCE OF WINDINGS.

| Windings. | D.C. Resistance in ohms. |
|--|--------------------------|
| Aerial Coil (M.W.)— | |
| Primary (L2) | 18 |
| Secondary (L3) | 6 |
| Aerial Coil (S.W.) | |
| Primary (L4) | 3 |
| Secondary (L5) | * |
| Oscillator Coil (M.W.)— | |
| Primary (L6) | * |
| Secondary (L7) | 2 |
| Oscillator Coil (S.W.)— | |
| Primary (L8) | * |
| Secondary (L9) | * |
| I.F. Transformer Windings | 11 |
| I.F. Filter (L1) | 45† |
| L.T. Choke (L16) | * |
| Smoothing Choke (L75) | 200 |
| R.F. Filter Choke— (L73, L74) | * |
| R.F. Filter Choke— (L71, L72) | 9 |
| Loudspeaker Input Trans- former (T1)— | |
| XA8 Primary | 425 or 510 |
| XA8 Secondary | * * |
| TX31 Primary | 380 |
| TX31 Secondary | * |
| Vibrator Transformer— (T71)— | |
| Primary | * |
| Secondary | 300 |

The above readings were taken on a standard chassis, but substitution of materials during manufacture may cause variations and it should not be assumed that a component is faulty if a slightly different reading is obtained.

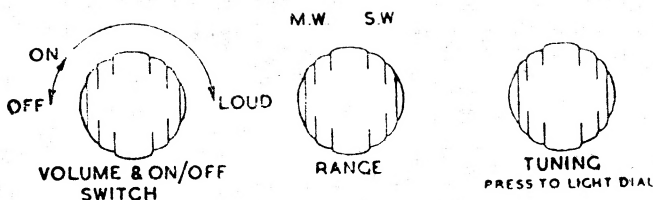
* Less than 1 ohm.

† On some receivers this reading may be as high as 60 ohms.

VALVE COMPLEMENT:

- (1) 1R5 Converter.
- (2) 1T4 I.F. Amplifier.
- (3) 1T4 I.F. Amplifier.
- (4) 1S5 Detector, A.V.C., and A.F. Amplifier.
- (5) 3V4 Output.

CONTROLS:



VIBRATOR A.W.A./OAK Type V6804

LOUDSPEAKER (Permanent Magnet):

Model 515M.

Model 616-T.

5 inch—code number AC32 7 inch—code number AY40

Transformer—XA8

Transformer—XA8

V.C. Impedance 3 ohms at 400 C.P.S.

V.C. Impedance—3 ohms at 400 C.P.S.

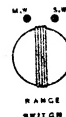
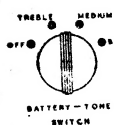
Model 716C.

12 inch—code number AU29

Transformer—TX31

V.C. Impedance 12½ ohms at 400 C.P.S.

MODEL 515-M



PRESS TO LIGHT DIAL

UNDISTORTED POWER OUTPUT 200 milliwatts

MODELS 616-T & 716-C

MECHANICAL SPECIFICATIONS.

Height. Width. Depth.

Cabinet Dimensions (inches)—

| | | | |
|-------|-----|-----|----|
| 515-M | 9¼ | 17¾ | 6¼ |
| 616-T | 10½ | 19½ | 8¾ |
| 716-C | 32 | 30 | 13 |

Chassis Base Dimensions (ins.)

| | | |
|----|----|----|
| 2½ | 11 | 5½ |
|----|----|----|

Carton Dimensions (inches)—

| | | | |
|-------|----|-----|-----|
| 515-M | 9½ | 17¾ | 8½ |
| 616-T | 11 | 20 | 10¼ |
| 716-C | 33 | 31¾ | 14¾ |

Weight (nett lbs.)—

| | |
|-------|----|
| 515-M | 14 |
| 616-T | 23 |
| 716-C | 56 |

Cabinet Finish—

| | |
|-------|---------------|
| 515-M | Walnut Veneer |
| 616-T | Walnut Veneer |
| 716-C | Walnut Veneer |

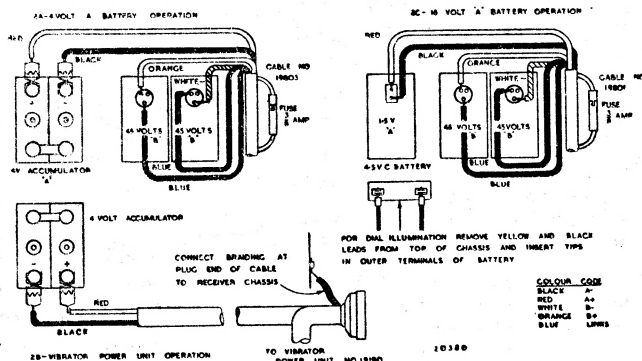
GENERAL DESCRIPTION.

The models 515-M, 616-T and 716-C are mantel, table and console models respectively. They may be either battery or vibrator operated and for battery operation either a 4-volt accumulator or a 1.5 volt dry cell "A" battery may be used, the necessary circuit modification being effected by the battery cable employed.

Battery connections are shown in the accompanying diagrams.

Design features include: Tropic-proof construction, automatic volume control, magnetite cores in I.F. transformers and broadcast oscillator coil, and air-dielectric trimming capacitors.

Models 616-T and 716-C employ straight-line edge lighted dials with metropolitan stations printed in 1/8" high characters.



ALIGNMENT PROCEDURE.

Manufacturer's Setting of Adjustments.

The receiver is tested by the manufacturers with precision instruments, and all adjusting screws are sealed. Re-alignment should be necessary only when components in tuned circuits are repaired or replaced, or when it is found that the seals over the adjusting screws have been broken.

It is especially important that the adjustments should not be altered unless in association with the correct testing instruments listed below.

Under no circumstances should the plates of the ganged tuning capacitor be bent, as the unit is accurately aligned during manufacture and cannot be re-adjusted unless by skilled operators using specialised equipment.

For all alignment operations, connect the "low" side of the signal generator to the receiver chassis, and keep the

generator output as low as possible to avoid A.V.C. action. Also, keep the volume control in the maximum clockwise position.

Testing Instruments.

- (1) A.W.A. Junior Signal Generator, type 2R3911
or
- (2) A.W.A. Modulated Oscillator, type J6726.

If the modulated oscillator is used, connect an 0.25 megohm non-inductive resistor across the output terminals, and, for Short Wave alignment, an additional 400 ohms non-inductive resistor in series with the "high" output lead of the instrument.

- (3) A.W.A. Output Meter type 2M8832.

ALIGNMENT TABLE

| Order. | Connect "high" side of Generator to | Tune Generator to | Set Receiver Dial to | Adjust for Maximum Peak Output. |
|--|---------------------------------------|-------------------|----------------------|---------------------------------|
| 1 | Aerial section of gang (Rear Portion) | 455 kc/s | 540 kc/s | L14 (Core) |
| 2 | Aerial section of gang (Rear Portion) | 455 kc/s | 540 kc/s | L13 (Core) |
| 3 | Aerial section of gang (Rear Portion) | 455 kc/s | 540 kc/s | L12 (Core) |
| 4 | Aerial section of gang (Rear Portion) | 455 kc/s | 540 kc/s | L11 (Core) |
| 5 | Aerial section of gang (Rear Portion) | 455 kc/s | 540 kc/s | L10 (Core) |
| Repeat the above adjustments until the maximum output is obtained. | | | | |
| 6 | Aerial Terminal | 600 kc/s | 600 kc/s | L.F. Osc. Core Adj. (L7)* |
| 7 | Aerial Terminal | 1500 kc/s | 1500 kc/s | H.F. Osc. Adj. (C5) |
| 8 | Aerial Terminal | 1500 kc/s | 1500 kc/s | H.F. Aer. Adj. (C2) |
| Repeat adjustments 6, 7 and 8. | | | | |
| 9 | Aerial Terminal | 16 mc/s | 16 mc/s | H.F. Osc. Adj. (C7)† |
| 10 | Aerial Terminal | 16 mc/s | 16 mc/s | H.F. Aer. Adj. (C3)‡ |

* Rock the tuning control back and forth through the signal.

† Use the minimum capacity peak if two can be obtained. Check to determine that C7 has been adjusted to correct peak by tuning the receiver to approximately 15.09 mc/s, where a weaker signal should be received.

‡ Use maximum capacity peak if two can be obtained.

Loudspeaker Service.

It is inadvisable to attempt loudspeaker repairs other than replacement of the transformer. The fitting of a new cone should be done only by Service Departments suitably equipped to do the work.

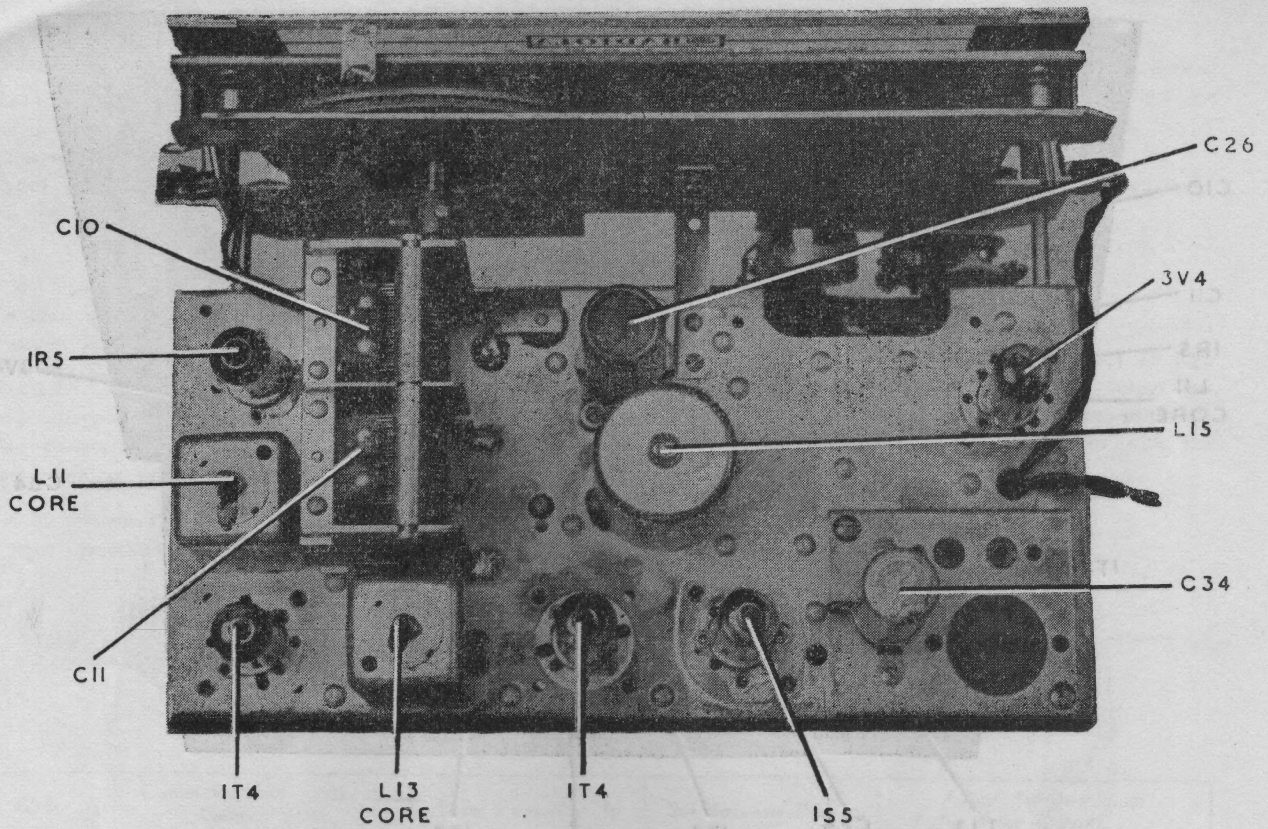
Chassis Removal.

Models 515-M and 616-T.

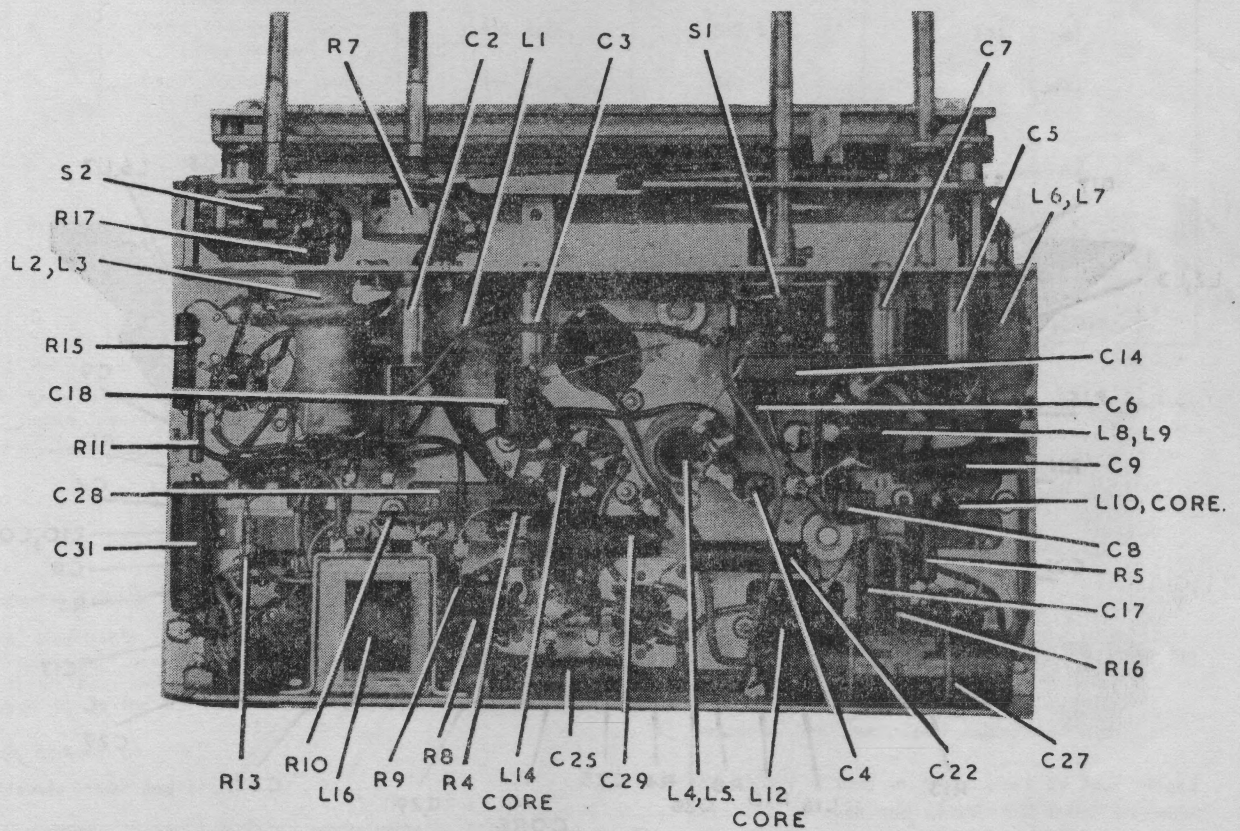
First remove the knobs and felt washers—each knob is held by a set screw. Then, remove the two screws from underneath the cabinet and withdraw the chassis.

Model 716-C.

- (1) Remove the knobs and felt washers. The knobs are each held by set screws.
- (2) Disconnect the loudspeaker cable.
- (3) The chassis is held in the cabinet by four winged nuts, two at each end of the dial frame assembly. Removal of these enables the chassis to be withdrawn from the cabinet.



CHASSIS (TOP VIEW) MODEL 616-T



CHASSIS (UNDERNEATH VIEW) MODEL 616-T

Dial Pointer Adjustment.

Model 515-M.

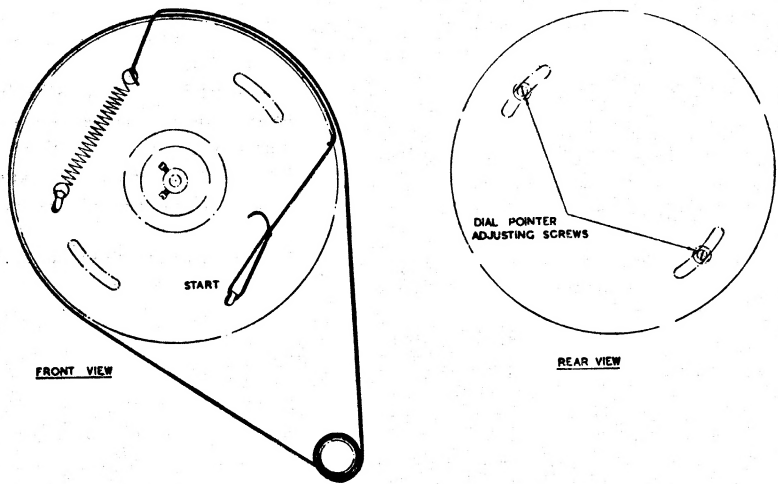
To shift the position of the dial pointer, loosen two screws in the rear of the drive drum—see accompanying diagram—move the drum to the required position, and re-tighten the screws.

Models 616-T and 716-C.

The dial pointer is held in position on the drive cord by two rubber-lined clips. To alter the position of the

pointer, loosen the holding clips slightly and move the pointer in the required direction. It is important to re-clip the clips after any adjustment of the dial pointer.

To replace the tuning drive cord, follow the diagram which is affixed to the back of the dial frame assembly. This shows the route of the cord and the method of attachment.



SOCKET VOLTAGES

| Valve. | Bias Volts. | | Screen to Chassis Volts. | | Anode to Chassis Volts. | | Anode Current mA. | | Filament Volts. |
|---------------------|-------------|------|--------------------------|-----|-------------------------|-----|-------------------|------|-----------------|
| | B. | V. | B. | V. | B. | V. | B. | V. | |
| IR5 Converter | 0 | 0 | 55* | 55* | 55* | 55* | 1.1 | 1.1 | 1.3—1.4 |
| IT4 I.F. Amp. | 0 | 0 | 35* | 35* | 85 | 87 | 1.4 | 1.4 | 1.3—1.4 |
| IT4 I.F. Amp. | 0 | 0 | 35* | 35* | 85 | 87 | 1.4 | 1.4 | 1.3—1.4 |
| IS5 Detector | 0 | -1.4 | 25† | 35† | 20† | 20 | 0.06 | 0.06 | 1.3—1.4 |
| 3V4 Output | -5 | -4.5 | 85 | 87 | 80 | 82 | 7.5 | 8 | 1.3—1.4 |

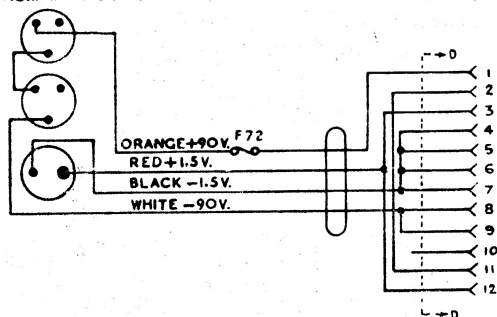
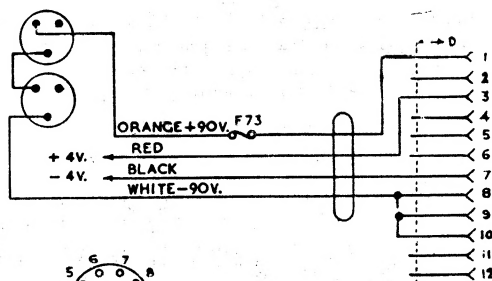
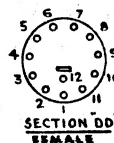
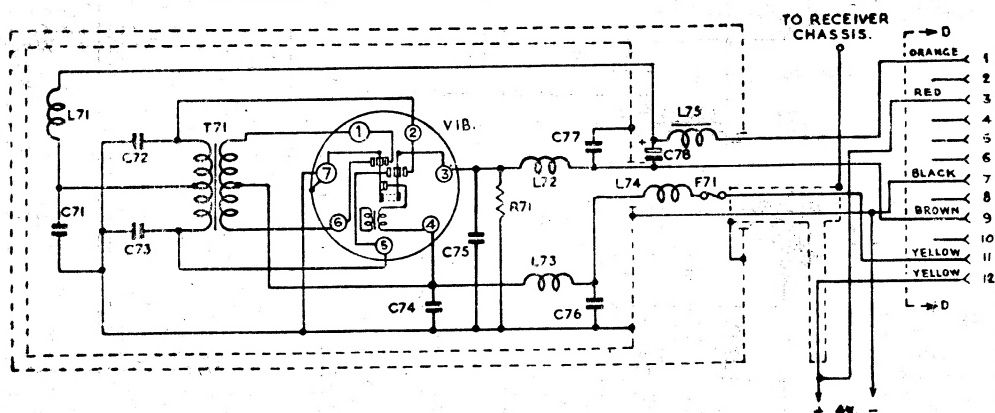
Measured with no signal input. Volume Control maximum clockwise.

* These readings may vary depending on the resistance of the voltmeter used.

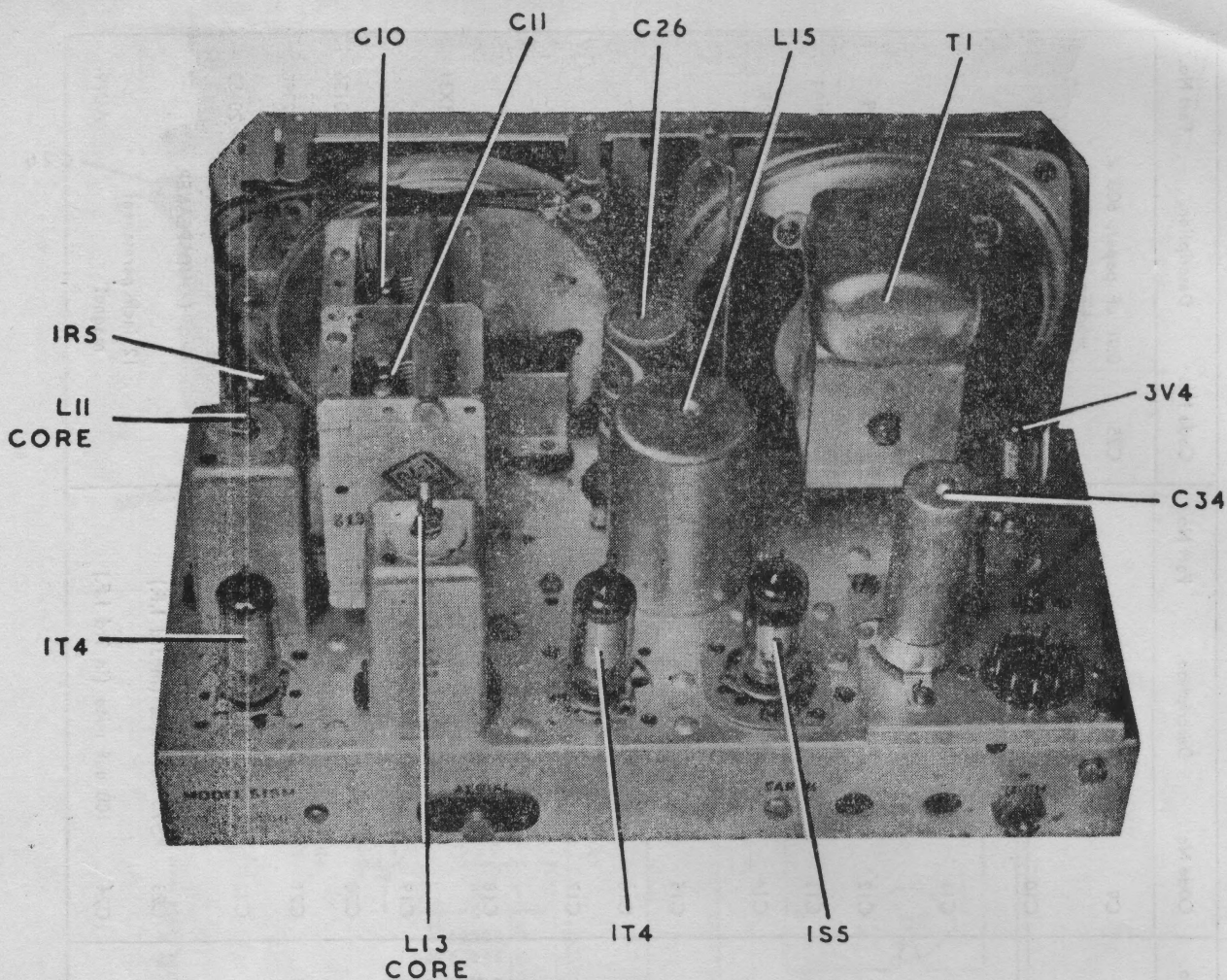
† Cannot be measured with an ordinary voltmeter.

MECHANICAL REPLACEMENT PARTS

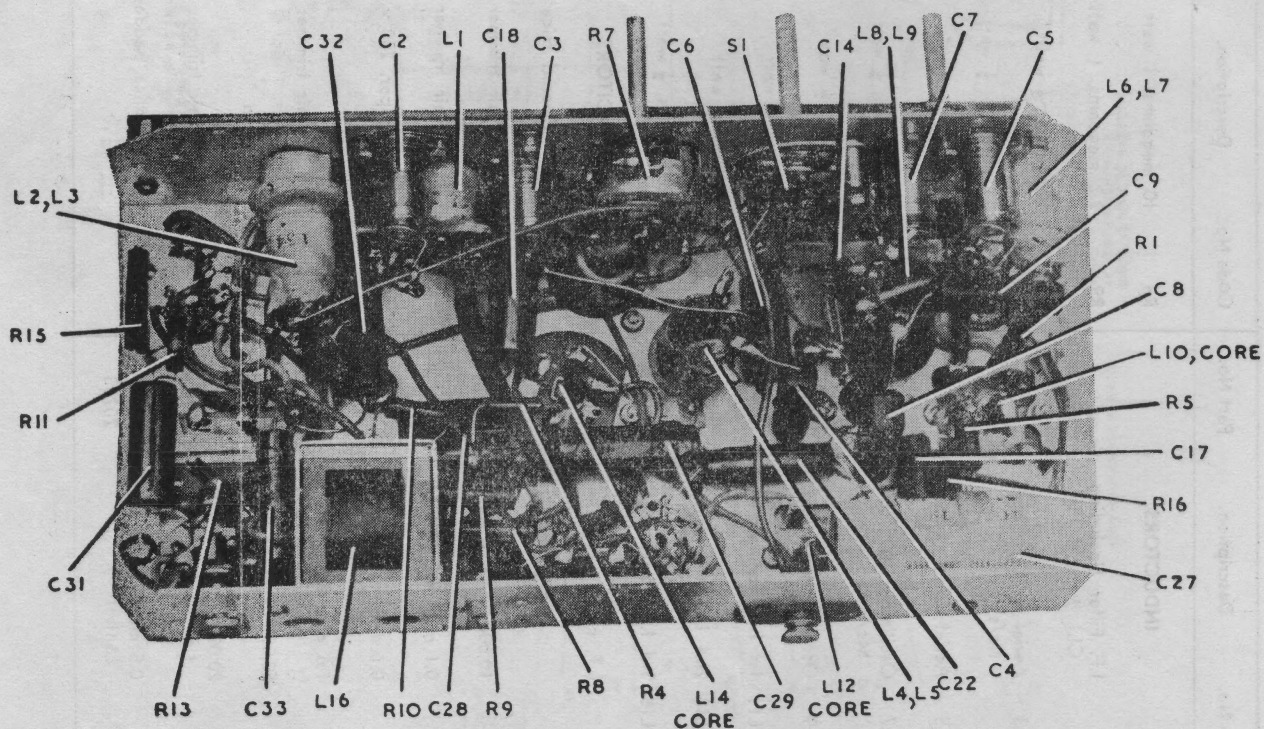
| Item. | Part No. | Item. | Part No. |
|--|----------|---------------------------|----------|
| Cabinet, 515-M | C76 | Drive Drum Assembly— | |
| Cabinet, 616-T | C83 | 515-M | 20130 |
| Cabinet, 716-C | C81 | 616-T | 20130 |
| Cable, battery— | | 716-C | 15684 |
| 4 volt | 19183 | Knob— | |
| 1.5 volt | 19182 | 515-M | 17603 |
| Cable, loudspeaker (616-T, 716-C only) | 19188 | 616-T | 4589 |
| Cable, volume control | 15928 | 716-C | 4589 |
| Chassis end— | | Socket, valve | 19965 |
| 515-M, 616-T, Left-hand | 20124 | Spindle, tuning drive— | |
| Right-hand | 22417 | 515-M | 20650 |
| 716-C, Left-hand | 20316 | 616-T | 22634 |
| Right-hand | 20318 | 716-C | 22388 |
| Dial Scale— | | Strip tag— | |
| 515-M | 20008 | 515-M, 2 way | 8863 |
| 616-T | 20524 | 3 way | 8821 |
| 716-C | 20334 | 5 way | 15926 |
| Dial Pointer Assembly— | | 616-T and 716-C— | |
| 515-M | 20132 | 1 way | 7628 |
| 616-T | 20522 | 2 way | 8863 |
| 716-C | 20331 | 2 way | 8021 |
| | | 5 way | 15926 |
| | | Vibrator Power Unit | 19190 |
| | | Terminal, aerial | 17717 |

PLUGS VIEWED
FROM WIRING SIDE.**BATTERY CABLE**
No. 19801PLUGS VIEWED
FROM WIRING SIDE**BATTERY CABLE**
No. 19803**VIBRATOR POWER UNIT No. 19190**

| | | |
|-----|-----------------------------------|-------|
| L71 | R.F. choke | 13809 |
| L72 | R.F. choke | 13809 |
| L73 | R.F. choke | 3149 |
| L74 | R.F. choke | 3149 |
| L75 | R.F. choke | 8321 |
| R71 | 150 ohms, 1 watt, W.W. | |
| C71 | 0.01 uF paper, 600 V. working | |
| C72 | 0.02 uF paper, 600 V. working | |
| C73 | 0.02 uF paper, 600 V. working | |
| C74 | 0.1 uF paper, 400 V. working | |
| C75 | 0.01 uF paper, 600 V. working | |
| C76 | 0.1 uF paper, 400 V. working | |
| C77 | 0.01 uF paper, 600 V. working | |
| C78 | 20 uF, 200 P.V. elec- trolytic | |
| T71 | Vibrator transformer | 17568 |



CHASSIS (TOP VIEW) MODEL 515-M



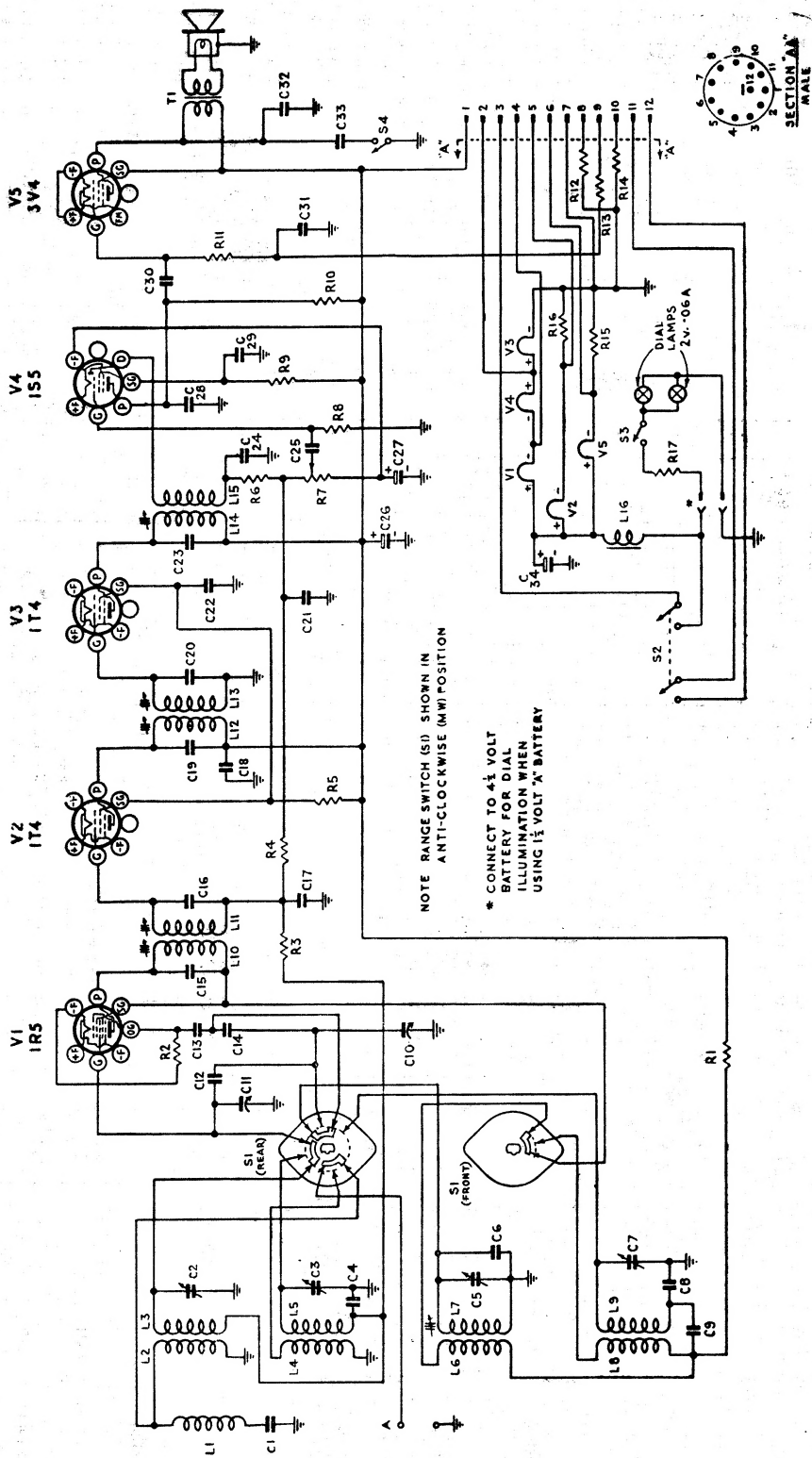
CHASSIS (UNDERNEATH VIEW) MODEL 515-M

CIRCUIT CODE — Model 716-C

515-M, 616-T & 716-C

| Code No. | Description. | Part No. | Code No. | Description. | Part No. | Code No. | Description. | Part No. |
|--------------------------|-----------------------------------|----------|-------------|-------------------------------|----------|-------------|-------------------------------|----------|
| INDUCTORS. | | | | | | | | |
| L1 | I.F. Filter (including C.I.) | 9382 | R8 | 10 megohms, 1 watt | | C9 | 0.05 uF paper, 200 v. working | |
| L2, L3 | Aerial Coil, 1600-540 Kc/s | 15454 | R9 | 3.2 megohms, 1 watt | | C10 | 12-430 uuF tuning (ganged) | 18286 |
| L4, L5 | Aerial Coil, 18.6 Mc/s | 15456 | R10 | 1 megohm, ½ watt | | C11 | 12-430 uuF tuning (ganged) | 18286 |
| L6, L7 | Oscillator Coil, 1600-540 Mc/s | 9206A | R11 | 0.5 megohm, ½ watt | | C12 | Neutralising | |
| L8, L9 | Oscillator Coil, 18.6 Mc/s | 15922 | R12 | 320 ohms, ½ watt | | C13 | 70 uuF mica | |
| L10, L11 | 1st I.F. transformer | 22416 | R13 | 0.5 megohm, ½ watt | | C14 | 470 uuF mica padder ± 2½% | |
| L12, L13 | 2nd I.F. transformer | 22416 | R14 | 320 ohms, ½ watt | | C15 | 70 uuF mica | |
| L14, L15 | 3rd I.F. transformer | 15483 | R15 | 25 ohms, 1 watt | | C16 | 70 uuF mica | |
| L16 | L.T. choke (audio) | XA18 | R16 | 56 ohms, 1 watt | | C17 | 0.05 uF paper, 200 v. working | |
| RESISTORS. | | | | | | | | |
| R1 | 10,000 ohms, ½ watt | | R17 | 10,000 ohms, ½ watt | | C18 | 0.1 uF paper, 200 v. working | |
| R2 | 0.1 megohm, ½ watt | | CAPACITORS. | | | C19 | 70 uuF mica | |
| R3 | 0.1 megohm, ½ watt | | C1 | 50 uuF silvered mica | | C20 | 70 uuF mica | |
| R4 | 1.6 megohm, ½ watt | | C2 | 3-25 uuF air trimmer | 19659 | C21 | 100 uuF mica (in 3rd I.F.) | |
| R5 | 50,000 ohms, ½ watt | | C3 | 3-25 uuF air trimmer | 19659 | C22 | 0.05 uF paper, 200 v. working | |
| R6 | 20,000 ohms, ½ watt (in 3rd I.F.) | | C4 | 0.05 uF paper, 200 v. working | | C23 | 70 uuF mica (in 3rd I.F.) | |
| R7 | 0.5 megohm, volume control | 20293 | C5 | 3-25 uuF air trimmer | 19659 | C24 | 100 uuF mica (in 3rd I.F.) | |
| TRANSFORMER. | | | | | | | | |
| T1 | Loudspeaker transformer | TX31 | C6 | 9 uuF mica | | SWITCHES. | | |
| Range Switch | | | | | | | | |
| S1 | Range Switch | 20156 | C7 | 3-25 uuF air trimmer | 19659 | S2 | Battery/Tone Switch | 22390 |
| S3 | Dial Lamp Switch | 20153 | C8 | 4000 uuF mica padder ± 2½% | | LOUDSPEAKER | | |
| 12 inch permanent magnet | | | | | | | | |
| AU29 | | | | | | | | |

CIRCUIT DIAGRAM — Model 515-M

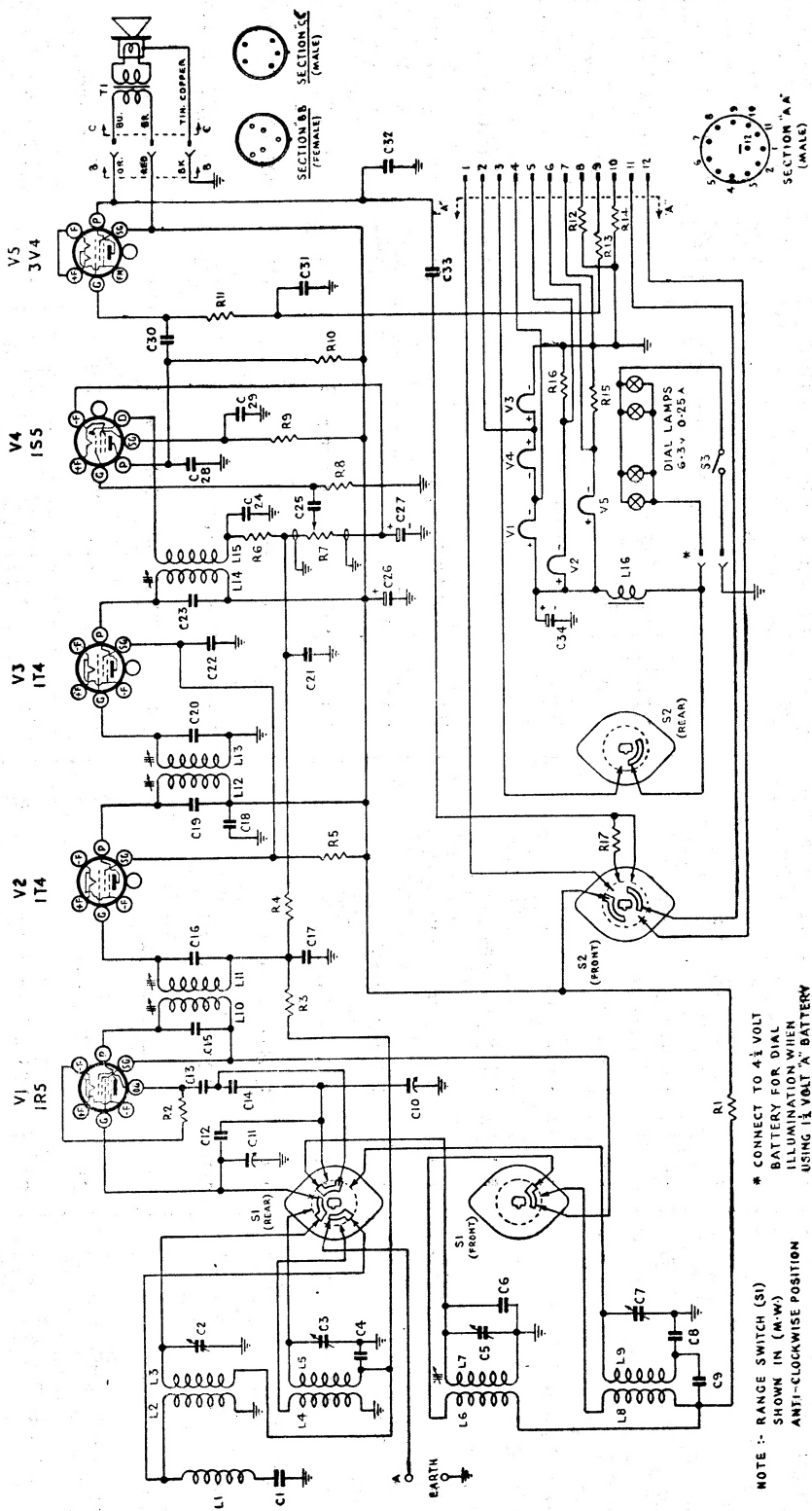


CIRCUIT CODE — Model 515-M

515-M, 616-T & 716-C

| Code No. | Description | Part No. | Code No. | Description | Part No. | Code No. | Description | Part No. |
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| INDUCTORS. | | | | | | | | |
| L1 | I.F. Filter (including C1) | 9382 | R7 | 0.5 megohm Volume Control | 20293 | C7 | 3-25 uuF air trimmer | 19659 |
| L2, L3 | Aerial Coil, 1600-540 Kc/s | 15454 | R8 | 10 megohms, 1 watt | | C8 | 4,000 uuF mica | |
| L4, L5 | Aerial Coil, 18-6 Mc/s | 15456 | R9 | 3.2 megohms, 1 watt | | C9 | 0.05 uF paper, 200 v. working | |
| L6, L7 | Oscillator Coil, 1600-540 Kc/s | 9206A | R10 | 1 megohm, ½ watt | | C10 | 12-430 uuF tuning (ganged) | 18286 |
| L8, L9 | Oscillator Coil, 18-6 Mc/s | 15922 | R11 | 0.5 megohm, ½ watt | | C11 | 12-430 uuF tuning (ganged) | 18286 |
| L10, L11 | 1st I.F. Transformer | 22416 | R12 | 320 ohms, ½ watt | | C12 | Neutralising | |
| L12, L13 | 2nd I.F. Transformer | 22416 | R13 | 0.5 megohm, ½ watt | | C13 | 70 uuF mica | |
| L14, L15 | 3rd I.F. Transformer | 15483 | R14 | 320 ohms, ½ watt | | C14 | 470 uuF mica | |
| L16 | LT Choke (Audio) | XA18 | R15 | 25 ohms, 1 watt | | C15 | 70 uuF mica | |
| RESISTORS. | | | R16 | 56 ohms, 1 watt | | C16 | 70 uuF mica | |
| R1 | 10,000 ohms, 1 watt | | R17 | Not used. | | C17 | 0.05 uF paper, 200 v. working | |
| R2 | 0.1 megohm, ½ watt | | CAPACITORS. | | | C18 | 0.1 uF paper, 200 v. working | |
| R3 | 0.1 megohm, ½ watt | | C1 | 50 uuF silvered mica | | C19 | 70 uuF mica | |
| R4 | 1.6 megohms, ½ watt | | C2 | 3-25 uuF air trimmer | 19659 | C20 | 70 uuF mica | |
| R5 | 50,000 ohms, ½ watt | | C3 | 3-25 uuF air trimmer | 19659 | C21 | 100 uuF mica (in I.F.) | |
| R6 | 20,000 ohms, ½ watt (in I.F.) | | C4 | 0.05 uF paper, 200 v. working | | C22 | 0.05 uF paper, 200 v. working | |
| | | | C5 | 3-25 uuF air trimmer | 19659 | C23 | 70 uuF mica (in I.F.) | |
| | | | C6 | 9 uuF mica | | C24 | 100 uuF mica (in I.F.) | |
| | | | | | | TRANSFORMERS. | | |
| | | | | | | T1 | Loudspeaker Transformer | XA8 |
| | | | | | | SWITCHES. | | |
| | | | | | | S1 | Range Switch | 20156 |
| | | | | | | S2 | Battery Switch (inc. in R7) | |
| | | | | | | S3 | Dial Lamp Switch | 20153 |
| | | | | | | S4 | Tone Switch | 20109 |
| | | | | | | LOUDSPEAKER. | | |
| | | | | | | | 5 inch Permanent Magnet | AC32 |

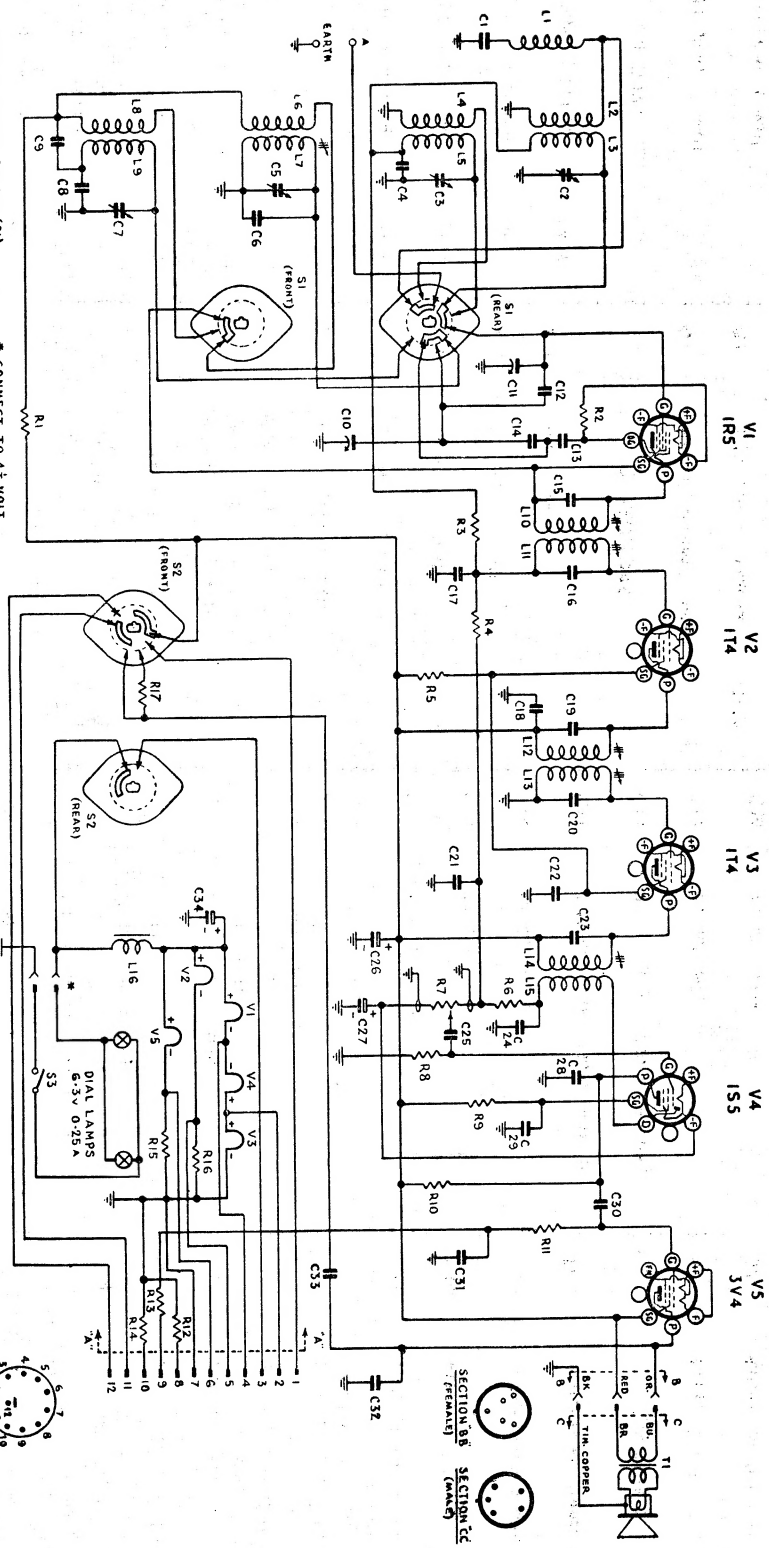
CIRCUIT DIAGRAM — Model 716-C



NOTE :- RANGE SWITCH (S1) SHOWN IN (M-W) ANTI-CLOCKWISE POSITION

* CONNECT TO 4 1/2 VOLT BATTERY FOR DIAL ILLUMINATION WHEN USING 1 1/2 VOLT A BATTERY

CIRCUIT DIAGRAM — Model 616-T



NOTE: RANGE SWITCH (S1) SHOWN IN (A.M.W.) ANTI-CLOCKWISE POSITION

* CONNECT TO 4½ VOLT BATTERY FOR DIAL ILLUMINATION WHEN USING 1½ VOLT "X" BATTERY

